omaniacs, five paranoiacs, six paralytics, and fourteen maniacs. He finds some disturbance of sensibility in only 2.4 per cent. of all cases.

2. The muscular and tactile senses are almost constantly normal, especially so in the paralytics.

3. The sense of hearing was found blunted in 35 per cent.

4. In the sense of taste there seemed to be some dis-association in the gustatory sensations.

Disturbances of taste and smell are very frequently met with in the insane.

5. In epileptics, disturbances of sensation are most frequet, then in melancholics, and least in the maniacs.

6. The degree of dullness of the general, tactile, and especially the sensibility of pain, is directly proportional to the condition of the patient. W. C. K.

CEREBRAL HEMORRHAGE.

E. Mendel. Why do hemorrhages into the brain occur most frequently from one of the small branches of the artery of the corpus striatum, while hemorrhages from the cortical blood-vessels are less frequent? This question has recently received the attention of Mendel (Berliner klin. Wochenschr., 1891, No. 24). The diseased condition of the cerebral vessels is the cause of the hemorrhage. Miliary aneurisms are developed, which burst when the arterial tension is suddenly increased. These aneurisms are found most frequently and in greatest number on the art. corp. striat. This is illustrated by an ingenious experiment. In accord with his investigations and those of Heubner and Duret, we may assume with certainty that the arteries, which supply the large ganglia and white substance, are terminal arteries, while the arteries of the cortex he proves, in opposition to Duret, form an extensive anastomotic plexus. This distribution was demonstrated by a system of rubber tubes. A rubber balloon representing the heart, and an attached rubber tube serving as the aorta and carotid. From this two systems of tubes arise, corresponding with the arrangement of the cerebral vessels, one anastomosing with each other and exemplifying the cortical arteries, and the other representing the arteries of the corpus striatum (terminal arteries).

If, by pressure on the balloon, an over-pressure is produced, all the tubes, the mercury manometer, adjusted in suitable places, will invariably indicate the following result: The pressure in the cortical arteries is always much less than in the carotid, while the pressure in the art. corp. striat. is only slightly less. If we transfer these conditions to man, the fact that the arteries of the large ganglia burst much more frequently than the cortical arteries is accounted for by the former not being protected by special arrangements against the effect of increased pressure like the anastomoses of the cortical vessels. The increase of pressure which occurs so frequently in life, in consequence of emotional disturbance, physical exertion, excessive use of coffee, alcohol, etc., enlarges the diameter and distends longitudinally the walls of the arteries which are especially exposed to it. The frequent recurrence of this process leads gradually in advanced age to atrophy of the muscular coat and miliary aneurisms. A sudden increase of pressure ruptures the aneurism, and this produces the apoplexy. M. explains the attack as being due to the variations in blood pressure, while the anæmia in the cortical arteries accounts for the loss of consciousness and the other general symptoms. As the most rational plan of treatment during the attack he recommends absolute bodily rest, especially the avoidance of any movement of the head, which should be kept elevated. (Neurolog. Centralb., No. 24, 1891.) W. M. L.

CLINICAL.

RELATIONS BETWEEN CHOREA AND EPILEPSY.

According to G. R. Trowbridge, M. D. (Alienist and Neurologist, Jan., 1892) there is an intimate relation between epilepsy and chorea, both being due to disturbances of the motor and intellectual centres of the brain, which differ only in degree of intensity. Chorea predisposes toward epilepsy, and epilepsy toward chorea—the former being more frequent. Chorea in one generation may be transmitted as epilepsy in succeding generations, or epilepsy may appear first and chorea in the following generations. Parental neurotic taint may make one child choreic and another epileptic. The diseases may exist simultaneously, but in these cases, the more violent the chorea the less frequent and severe the epileptic convulsions, and *vice versa;* the more violent the